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11 ILLUMINA, INC. and VERINATA HEALTH, INC.

12 **UNITED STATES DISTRICT COURT**  
13 **NORTHERN DISTRICT OF CALIFORNIA**  
**SAN FRANCISCO DIVISION**

14 VERINATA HEALTH, INC.,  
15 and

16 THE BOARD OF TRUSTEES OF THE  
17 LELAND STANFORD JUNIOR  
UNIVERSITY

18 Plaintiffs and  
Counterclaim-Defendants,

19 v.

20 ARIOSIA DIAGNOSTICS, INC.,  
21 and

22 LABORATORY CORPORATION OF  
AMERICA HOLDINGS,

23 Defendants and  
Counterclaim-Plaintiffs.

24 ILLUMINA, INC.,

25 Plaintiff,

26 v.

27 ARIOSIA DIAGNOSTICS, INC.,  
28 Defendant.

Case No. 3:12-cv-05501-SI (consolidated  
with Case No. 3:14-cv-01921-SI and Case  
No. 3:15-cv-02216-SI)

**PLAINTIFFS AND COUNTERCLAIM  
DEFENDANTS ILLUMINA, INC. AND  
VERINATA HEALTH, INC.'S MOTION  
IN LIMINE #9 TO EXCLUDE  
TESTIMONY OF DR. RYAN  
SULLIVAN**

Judge: Hon. Susan Illston

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ILLUMINA, INC.,  
Plaintiff,  
v.  
ARIOSIA DIAGNOSTICS, INC., AND  
ROCHE MOLECULAR SYSTEMS, INC.,  
Defendants.

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1 **I. INTRODUCTION**

2 Plaintiffs Illumina, Inc. and Verinata Health, Inc. move *in limine* to exclude all evidence  
3 and testimony by Dr. Ryan Sullivan relating to his opening expert report on damages for  
4 Illumina's alleged breach of contract.

5 In response to Illumina's infringement claims based on the '794 patent, Ariosa asserts  
6 counterclaims for breach of contract. *See* Dkt. No. 394-26 ¶¶ 71-79. In particular, Ariosa alleges  
7 that Illumina breached a January 4, 2012, Sale and Supply Agreement (the "Agreement") between  
8 Ariosa and Illumina for the sale of DNA sequencing products (sequencers and reagents). *See* Dkt.  
9 No. 394-30. Critically, § 18 of the Agreement contains two limitations central to any damages  
10 theories presented in this case: (i) any damages cannot include indirect or special damages, and (ii)  
11 the damages are capped at the amount that Illumina received from Ariosa under the Agreement.  
12 *Id.* Thus, to be relevant and helpful for the jury, Dr. Sullivan should have opined only on the direct  
13 damages suffered by Ariosa, and he should have limited his calculations to the cap identified in  
14 § 18 of the Agreement. Dr. Sullivan did neither.

15 Failing even to acknowledge the existence of § 18, Dr. Sullivan did not confine his  
16 damages opinions to any direct losses actually suffered by Ariosa, opting instead to offer theories  
17 that are expressly *barred* by § 18. Indeed, Dr. Sullivan's calculations reflect special, indirect, or  
18 consequential damages in the form of (i) lost proceeds or lost business value that may have  
19 resulted from Ariosa's cancellation of its IPO, (ii) the cost of the IPO itself, (iii) lost profits related  
20 to the failure to secure distribution partners, and (iv) costs associated with accelerating certain  
21 products. *See* Dkt. No. 454-16 at 70. Nowhere did he contemplate any *direct* losses, such as the  
22 loss of value of purchased equipment, nor did he cap his calculations to the amount that Illumina  
23 received under the Agreement. Because the Agreement's limitation of liability clause (§ 18)  
24 legally bars all of the damages that Dr. Sullivan identifies in his opening report, the evidence and  
25 argument concerning these opinions should be excluded. Moreover, because Dr. Sullivan did not  
26 consider the limitation of liability clause at all, he should likewise be precluded from testifying  
27 about this clause at trial.

28 Ariosa also claims that Illumina breached the covenant of good faith and fair dealing in

1 two ways: (1) “by filing the ’794 patent infringement claim against Ariosa;” and (2) “by asserting  
2 pretextual claims of ‘breach’ of the Agreement.” *See* Dkt. No. 394-26 ¶ 85. Ariosa’s contentions  
3 in this regard thus focus on Illumina’s alleged interference with the benefits that Ariosa should  
4 have enjoyed under the same Agreement underlying its breach of contract claims. As a threshold  
5 matter, § 18’s limitation of liability applies regardless of Ariosa’s legal theory, including its claims  
6 based on the breach of the implied covenant. Thus, Dr. Sullivan’s damages opinions in all cases  
7 must be so tailored. But once again, none of Dr. Sullivan’s calculations reflect the value that  
8 Illumina allegedly derived from Ariosa from enjoying under the Agreement, such as the value of any  
9 equipment or other goods received. The calculations instead show indirect, consequential  
10 damages, such as what Ariosa’s stock price might have been in the future. His opinions therefore  
11 have nothing to do with Ariosa’s contentions (in addition to being barred by the Agreement) and  
12 should thus be excluded as irrelevant and prejudicial.

13 Even if Dr. Sullivan’s opinions were confined to the Limitation of Liability clause or else  
14 purported to measure the value of contractual benefits that Ariosa lost—they do not—Dr.  
15 Sullivan’s opinions should still be excluded because they are based on fundamentally unsound  
16 methodology that has no place before a jury. To calculate the harm to Ariosa based on Illumina’s  
17 alleged breach, Dr. Sullivan attempts to tell the future in four different ways. First, he tries to  
18 predict the stock market; second, he guesses what a third party might have paid for Ariosa were  
19 Ariosa for sale; third, he makes up projected revenues that Ariosa might have earned in the future;  
20 and fourth, he guesses what Ariosa’s profits might have been in an alternative economy. *See* Ex. 1  
21 [Expert Report of Ryan Sullivan] §§ 10-13. Each of these fanciful approaches yields damages in  
22 the extraordinary amount of \$100 million (*far* in excess of the damages cap referenced above).  
23 None of this is based on reliable principles or methods, and all of it should be excluded.

24 Finally, Dr. Sullivan’s Event Study (§ 8) attempts to calculate the effect of a potential  
25 Ariosa IPO on Illumina. This calculation is irrelevant to any issue in this case, as it does not  
26 inform any of Dr. Sullivan’s calculations concerning Ariosa’s damages. And to the extent that  
27 Ariosa seeks to rely on the Event Study to argue that Illumina would have been motivated to  
28 interfere with Ariosa’s IPO, the Event Study is highly prejudicial. The “Event Study” should also

1 be excluded because it is the product of unreliable and flawed methodology, as explained below.  
2 In sum, Dr. Sullivan’s opinions reflected in his opening expert report should be excluded in their  
3 entirety for ignoring the Agreement and for deviating from reliable principles and methods.

## 4 **II. ARGUMENT**

### 5 **A. Dr. Sullivan’s Opinions Concerning Ariosa’s Damages Are Barred by the** 6 **Parties’ Agreement to Limit Liability and Should Be Precluded**

#### 7 **1. Dr. Sullivan Failed to Identify Any Direct Damages for Breach of** 8 **Contract, Nor Did He Consider the Limitation of Liability**

9 Although he failed to recognize it in his report, Dr. Sullivan cannot deny that § 18 of the  
10 Illumina-Ariosa Agreement expressly limits the type of damages that Ariosa can recover to direct  
11 damages, at the exclusion of any special, indirect, or consequential damages. *See* Dkt. No. 394-4  
12 at 15 (reciting the Limitation of Liability clause). Section 18 of the Agreement exists for good  
13 reason. Under California law, “[c]ontractual damages are of two types—general damages  
14 (sometimes called direct damages) and special damages (sometimes called consequential  
15 damages).” *Lewis Jorge Const. Mgmt., Inc. v. Pomona Unified School Dist.*, 34 Cal. 4th 960, 968  
16 (Cal. 2004). General or direct damages are “those that flow directly and necessarily from a breach  
17 of contract, or that are a natural result of a breach.” *Id.* Special or consequential damages, on the  
18 other hand, are “those losses that do not arise directly and inevitably from any similar breach of  
19 any similar agreement. Instead, they are secondary or derivative losses arising from circumstances  
20 that are particular to the contract or to the parties.” *Id.* Because of the limitless reach of indirect  
21 damages, contracting parties (like Illumina and Ariosa) routinely prohibit them.

22 Here, as stated above, § 18 of the Agreement limits Ariosa’s claims to direct damages at  
23 the exclusion of any damages in the form of lost profits, indirect, special, and consequential  
24 damages of any kind.<sup>1</sup> Dkt. No. 394-30. Thus, this clause should have been the starting point for

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25  
26 <sup>1</sup> Limitation of liability clauses are enforceable unless the limitation is “unconscionable.” *See*  
27 *Markborough California, Inc. v. Superior Court*, 227 Cal. App. 3d 705, 715 (Cal. Ct. App. 1991).  
28 Under California law, “[u]nconscionability is a question of law.” *Nemec v. Linebarger*, No. 5:14-  
CV-01343-PSG, 2014 WL 6847342, at \*4 (N.D. Cal. Dec. 4, 2014) (citing Cal. Civ. Code  
§ 1670.5(a)). When a party claims that a contract or clause thereof is unconscionable, “the parties  
shall be afforded a reasonable opportunity to present evidence as to its commercial setting,

1 Dr. Sullivan's analysis, but he did not even consider it. Indeed, § 18 is neither discussed nor even  
2 identified anywhere in Dr. Sullivan's report. This alone is reason to exclude his opinions.

3 Even if Dr. Sullivan had considered § 18, he never contended that Ariosa suffered any  
4 direct damages due to Illumina's alleged breach. For example, he did not identify any of the  
5 following type of damages contemplated by § 18:

- 6 • any goods that Ariosa allegedly did not receive;
- 7 • any sequencers or reagents that Ariosa was unable to use;
- 8 • any equipment that Ariosa had to return;
- 9 • any goods that Illumina delivered that were not of the quality promised; nor
- 10 • any purchases for which Ariosa did not receive the full value based on Illumina's
- 11 alleged breach;
- 12 • much less the value of any of the foregoing.

13 Nor could he: There is simply no dispute that Illumina fulfilled all of its duties throughout the  
14 three-year term of the Agreement. Thus, having failed to identify any direct damages, Dr. Sullivan  
15 has offered nothing relevant to the Agreement at all. *See* Fed. R. Evid. 402 ("Irrelevant evidence is  
16 not admissible.")

17 The theories of damages that Dr. Sullivan *did* provide have nothing to do with whether  
18 Illumina fulfilled its duty to supply goods under the Agreement. Instead, all of the harm Dr.  
19 Sullivan identifies would constitute special, indirect, or consequential damages that are precluded  
20 by § 18. For example, in his expert report, Dr. Sullivan identified four categories of damages  
21 allegedly suffered by Ariosa: (i) that Ariosa was unable to proceed with its IPO, resulting in a loss  
22 of company value; (ii) that Ariosa experienced difficulty establishing relationships with potential  
23 distribution partners; (iii) that Ariosa incurred losses related to planning its IPO; and (iv) that  
24 Ariosa was forced to accelerate its transition to an alternative testing platform. Dkt. No. 454-16 at  
25

26 purpose, and effect to aid the court in making the determination." Cal. Civ. Code § 1670.5(b)  
27 (West). The legislative committee's comments clarify that such evidence "is for the court's  
28 consideration, not the jury's." Cal. Civ. Code § 1670.5 Legislative Committee Comments—  
Assembly (West). Thus, Dr. Sullivan should be prohibited from opining at the trial whether § 18 is  
unconscionable.



1 70. Each of these categories of indirect or consequential damages is precluded by the limitation of  
2 liability clause. Indeed, these are exactly the type of farfetched damages that sellers of goods  
3 routinely limit in their contracts so that they are not exposed to contract claims that far exceed the  
4 value of the goods sold. Moreover, the methodologies that Dr. Sullivan used to measure damages,  
5 discussed in more detail below, likewise do not reflect any direct losses suffered by Ariosa under  
6 the Agreement. Instead, they engage in a fanciful fortune telling of future stock prices and  
7 potential acquisition opportunities. *See* Ex. 1 [Expert Report of Ryan Sullivan] §§ 10-13. None of  
8 these calculations are bounded by the contours of § 18, much less even mention the amounts paid  
9 by Ariosa under the Agreement versus the value that Ariosa ultimately received.

10 Ariosa cannot credibly argue that the alleged damages reflected in Dr. Sullivan's opening  
11 report arose directly and inevitably from any breach of the sale and supply agreement. The  
12 measure of direct damages that would generally be available under such an agreement is  
13 obvious—the value of the goods promised to be supplied. Dr. Sullivan's claimed losses for  
14 collateral effects on Ariosa's IPO prospects or ability to secure third-party distribution fall  
15 squarely within the ambit of § 18's exclusion of special and consequential damages. Because these  
16 types of damages are expressly excluded in this case, the entirety of Dr. Sullivan's opinions should  
17 also be excluded.

18 Dr. Sullivan's opinions should be excluded for the additional reason that he never  
19 considered the cap imposed by the limitation of liability clause. Indeed, nowhere did Dr. Sullivan  
20 attempt to calculate what the limitation of liability under § 18 even was, namely, the total amount  
21 Illumina received from Ariosa under the Agreement. Instead, there were no limits to his math,  
22 which in most cases resulted in damages in excess of \$100 million—over *six times* greater than  
23 the cap that even Ariosa says applies. Indeed, in its brief in opposition to Illumina's motion for  
24 summary judgement of dismissal of Ariosa's contract claims, Ariosa calculates that it paid  
25 Illumina roughly \$18 million for sequencers. *See* Dkt. No. 435-4 at 23. But Dr. Sullivan claims  
26 damages up to \$115 million. His opinions thus smack of prejudice and should not be presented to  
27 the jury.

1                   **2. Dr. Sullivan Failed to Identify Any Damages for the Breach of the**  
2                   **Covenant of Good Faith and Fair Dealing**

3           Dr. Sullivan's damages opinions are also inapplicable to Ariosa's claim for a breach of the  
4 covenant of good faith and fair dealing. This claim concerns alleged interference with the benefits  
5 Ariosa should have enjoyed under the contract, namely, the supply by Illumina to Ariosa of  
6 sequencers and reagents. But neither Illumina notifying Ariosa of the breach nor Illumina's filing  
7 of the '794 patent infringement action frustrated Ariosa's right to purchase goods under the  
8 Agreement. Indeed, Illumina did not terminate the Agreement, nor Ariosa's right to purchase  
9 goods thereunder, until the Agreement expired by its terms in January 2015. Illumina continued to  
10 supply goods, and Ariosa continued to purchase and receive them pursuant to the terms of the  
11 Agreement, even long after Illumina had sent the notices of breach and filed the lawsuit.  
12 Therefore, Ariosa's bargained-for benefit under the Agreement—i.e., purchasing and receiving  
13 goods for a three year period—was not disrupted by Illumina sending the notices of breach or  
14 filing this lawsuit.

15           Based on the above facts, there are no damages that Dr. Sullivan could identify that are the  
16 direct result of Illumina's alleged breach of the implied covenant of good faith and fair dealing.  
17 Indeed, Dr. Sullivan never identified any such damages, nor did he segregate any of his damages  
18 opinions between breach of contract and breach of the implied covenant. Moreover, any damages  
19 for breach of the implied covenant are limited by § 18 of the Agreement, which Dr. Sullivan failed  
20 to consider. Thus, for the same reasons identified above, Ariosa's damages are limited by § 18 of  
21 the Agreement, and Dr. Sullivan has identified no damages within those contours. *See Stewart v.*  
22 *Screen Gems-EMI Music, Inc.*, 81 F. Supp. 3d 938, 965 (N.D. Cal. 2015) (explaining that "actions  
23 for breach of the implied covenant [of good faith and fair dealing] are generally limited to contract  
24 damages"); *Foley v. Interactive Data Corp.*, 47 Cal. 3d 654, 684 (1988) ("Because the covenant  
25 [of good faith and fair dealing] is a contract term, however, compensation for its breach has almost  
26 always been limited to contract rather than tort remedies.").

27           Dr. Sullivan has thus offered no opinions concerning damages for the breach of the  
28 covenant of good faith and fair dealing, and he should be precluded from testifying concerning the

1 breach at trial.

2 **3. Dr. Sullivan Should Not Be Permitted to Supplement His Opinions**

3 As indicated above, Ariosa offered a new theory in its opposition to Illumina’s summary  
4 judgement motion, namely, that it suffered damages in the amount of \$18 million, the amount  
5 Ariosa says it paid Illumina for sequencers. Dr. Sullivan should not be permitted to opine on this  
6 theory because it was not included in his expert report. *See, e.g., Apple, Inc. v. Samsung*  
7 *Electronics Co., Ltd.*, No. 11-CV-01846-LHK, 2013 WL 6001902, at \*3 (N.D. Cal. Nov. 12,  
8 2013) (“The Court finds that Apple’s failure to disclose this new theory of lost profits damages  
9 that is not based on its own damages experts at any point prior to the weekend before the retrial  
10 warrants exclusion of this new lost profits theory.”); *United States ex rel. Brown v. Celgene Corp.*,  
11 No. CV 10-3165 GHK (SS), 2016 WL 6562065, at \*7 (C.D. Cal. Aug. 23, 2016) (“Dr. Hay’s  
12 addition of \$15 billion in damages based on a theory that was not even hinted at in Dr. Hay’s  
13 original Report was a surprise to Defendant, particularly because Dr. Hay could have, but did not,  
14 offer this expansive theory in his original Report”).

15 **B. Even If Ariosa Could Legally Seek Damages, Evidence and Argument**  
16 **Concerning Dr. Sullivan’s Opinions Should Be Excluded as Irrelevant and**  
17 **Unreliable**

17 Even if Dr. Sullivan’s damages opinions were relevant to Ariosa’s claims, they should still  
18 be excluded as highly unreliable. *Power Integrations, Inc. v. Fairchild Semiconductor Int’l, Inc.*,  
19 711 F.3d 1348, 1373 (Fed. Cir. 2013) (“District courts, as gatekeepers, must nevertheless ensure  
20 that all expert testimony is rooted in firm scientific or technical ground. To that end, the Federal  
21 Rules of Evidence require that an expert’s testimony be the product of reliable principles and  
22 methods applied to sufficient facts or data. The trial judge must ensure that the expert has reliably  
23 applied the principles and methods to the facts of the case.”) (citing Fed. R. Evid. 702(b)-(d))  
24 (quote omitted). Here, none of Dr. Sullivan’s approaches meet this standard.

25 As a threshold matter, Dr. Sullivan calculates damages that are irrelevant to the parties in  
26 this case. In particular, Dr. Sullivan’s damages methodology assumes that the difference between  
27 what Ariosa’s market value of equity would have been had Ariosa’s IPO proceeded and Ariosa’s  
28 actual value of equity in the absence of an IPO is a “reasonable estimate of the amount of damages

1 caused to Ariosa by the alleged conduct.” *Id.* ¶ 146. This premise is fundamentally flawed because  
2 the difference represents the theoretical damages to Ariosa’s shareholders—who are not parties to  
3 this case—and not Ariosa the company. Indeed, Dr. Sullivan admits that he did not calculate the  
4 value of Ariosa the company. *See* Ex. 4 [Sullivan Tr.] at 68:6-23. Notably, Dr. Sullivan failed to  
5 identify a loss to the company in the form of a single lost employee or customer. *See id.* at 122:10-  
6 15; *id.* at 123:3-12. Nor did Dr. Sullivan identify a single lost sale, a single price reduction, a  
7 single cost increase (aside from a mode increase in designing around the asserted 430 Patent), a  
8 single lost business partnership, or a single negative impression that was created in the  
9 market/instance of reputational damage.

10 **1. Evidence and Argument Concerning Dr. Sullivan’s IPO Valuation**  
11 **Methodology Should be Excluded (§ 10 of Expert Report)**

12 Even if the harm to Ariosa’s shareholders were a relevant metric, Dr. Sullivan’s  
13 calculations are highly unreliable. For example, Dr. Sullivan relies on a Silicon Valley Analytics  
14 (“SVB Analytics”) 409A valuation analysis to estimate the per-share price of Ariosa’s common  
15 stock around the time of Illumina’s alleged misconduct. Ex. 1 [Expert Report of Ryan Sullivan] ¶  
16 157. Dr. Sullivan admits, however, that 409A valuations such as the SVB valuation are primarily  
17 used for tax purposes. *See id.* ; *see also* Ex. 4 [Sullivan Tr.] at 126:18-23. At deposition, Dr.  
18 Sullivan could not identify any authority for using such valuations in his analysis. *Id.* at 137:21-  
19 138:1. Dr. Sullivan compared the results of this tax valuation to the actual price per share set for  
20 the IPO that JP Morgan estimated plus anticipated growth in the stock price. Ex. 1 ¶ 148. Dr.  
21 Sullivan thus utilized a tax methodology to estimate the value of Ariosa without an IPO, and the  
22 value of shares traded on an open stock market for Ariosa’s valuation with an IPO. This is a  
23 deeply flawed and unreliable comparison of apples to oranges.<sup>2</sup>

24  
25  
26  
27 <sup>2</sup> Because Dr. Sullivan uses flawed methods, he reaches an extremely flawed and absurd result—  
28 he argues that Ariosa was worth \$181 million before the IPO and would have been worth \$264-  
297 million if the IPO proceeded. Ex. 1 ¶¶ 155, 176.

1                   **2. Evidence and Argument Concerning Dr. Sullivan’s Acquisition**  
2                   **Analysis Should be Excluded (§ 11 of Expert Report)**

3           Dr. Sullivan also attempts to estimate the damages to Ariosa by calculating what Roche  
4 would have paid for Ariosa had its IPO proceeded. Ex. 1 [Expert Report of Ryan Sullivan] ¶¶ 178-  
5 79. This analysis is pure speculation—there is absolutely no evidence in the record that Roche  
6 would have actually paid more. Moreover, this analysis is flawed and irrelevant because the  
7 difference in theoretical acquisition price by Roche is not damage to Ariosa the company, but to  
8 Ariosa’s investors, who are not parties to the litigation.

9           Dr. Sullivan’s analysis suffers from additional flaws. As part of this analysis, Dr. Sullivan  
10 attempts to estimate what Ariosa’s stock price would have been at the time of the Roche  
11 acquisition had the IPO been successful. *Id.* ¶¶ 185-86. Dr. Sullivan estimates the growth in  
12 Ariosa’s theoretical stock price by evaluating stocks of 64 biotechnology companies that launched  
13 IPOs from the beginning of 2013 to the beginning of 2014. *Id.* ¶ 150. But Dr. Sullivan offers zero  
14 analysis or explanation whatsoever for why Ariosa’s stock price would have grown at the same  
15 average rate of the 64 biotechnology companies he selected.

16           Moreover, Dr. Sullivan fails to explain that 21 of the benchmark companies on Dr.  
17 Sullivan’s list experienced *negative* growth after their IPOs. *See id.* at F-2, p. 3 of 5. Dr. Sullivan  
18 offers no reasoning for why Ariosa would have performed at the average 39.5% growth instead of  
19 losing value. In fact, only 30 of the 64 companies performed at or better than the 39.5% average.

20           Dr. Sullivan’s average is also improperly skewed on the high side because of the timing of  
21 the IPOs he selected as benchmarks. As indicated above, Dr. Sullivan selected virtually all of  
22 2013, but only the first quarter of 2014. Yet, as Dr. Sullivan admits, the 2014 IPO market was less  
23 favorable than it was in 2013. *See* Ex. 4 [Sullivan Tr.] at 135:19-23. Indeed, 2013 was described  
24 as “the best IPO market since 2000.”<sup>3</sup> Then, in 2014, the biotechnology sector moved from its 4th

25 \_\_\_\_\_  
26 <sup>3</sup> *See* Ex. 5 [[https://www.forbes.com/sites/brucebooth/2013/09/22/whats-behind-the-booming-](https://www.forbes.com/sites/brucebooth/2013/09/22/whats-behind-the-booming-biotech-ipo-market/#286a43e71d60)  
27 [biotech-ipo-market/#286a43e71d60](https://www.forbes.com/sites/brucebooth/2013/09/22/whats-behind-the-booming-biotech-ipo-market/#286a43e71d60) (Sep. 22, 2013)] (“Biotech is back with a vengeance in this  
28 IPO window. After a decade of drought, we’ve witnesses over 30 new biotech offerings this year  
and more than \$2.5B raised – *the best IPO market since 2000*. In fact, it’s already the 2nd busiest  
IPO year in the 30+ year history of biotech – bigger than both the 1991 and 1996 window in terms  
of number of new offerings.”).

1 year as the top performing sector and saw the two biggest session drops since February 2012.<sup>4</sup>  
2 When viewing the average growth rate only for the companies with IPO dates in Q1 2014—which  
3 is a period much closer to Ariosa’s expected IPO date—the benchmark growth rate drops from  
4 39.5% to -0.37%—i.e., essentially zero growth. *See* Ex. 7 [Malackowski Rebuttal Report] at 30-  
5 31.

6 Dr. Sullivan’s Acquisition Analysis methodology is thus irrelevant, fundamentally flawed,  
7 and would be highly prejudicial and confusing if presented to the jury. Therefore, evidence and  
8 argument concerning this section of Dr. Sullivan’s report should be excluded.

9 **3. Evidence and Argument Concerning Dr. Sullivan’s “Forecast Analysis”**  
10 **Should Be Excluded (§ 12 of Expert Report)**

11 Dr. Sullivan also attempts to estimate damages to Ariosa caused by this lawsuit by  
12 comparing its actual sales to its forecasted sales, concluding that the difference is somehow the  
13 fault of Illumina. *See* Ex. 1 [Expert Report of Ryan Sullivan] ¶ 196. Dr. Sullivan recognizes that  
14 the difference in Ariosa’s forecasts and actual results must have been caused by factors other than  
15 Illumina’s alleged misconduct. *Id.* But he does not identify any of those factors. For example, an  
16 obvious factor is the natural uncertainty of forecasting future performance. Dr. Sullivan also does  
17 not discount his calculation to account for the other factors that he admits exist. To the contrary,  
18 Dr. Sullivan attributes 100% of the damage to Illumina. Dr. Sullivan’s failure to account for these  
19 factors renders his methodology flawed and opinions inherently unreliable.

20 Dr. Sullivan’s analysis further suffers from the faulty assumption that Ariosa’s forecasts  
21 provide a reasonably accurate estimate for revenue that Ariosa would have earned but for  
22 Illumina’s alleged misconduct. Indeed, he fails to consider whether Ariosa actually met its  
23 financial forecasts such that relying on them would be a reasonable. He also fails to consider  
24 whether Ariosa actually increased or decreased its sales forecasts after the lawsuit, which would  
25 indicate whether Ariosa itself was expecting a sales decline.

26 Dr. Sullivan’s Forecast Analysis thus suffers from several methodological flaws and faulty  
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28 <sup>4</sup> *See* Ex. 6 [Ravi Mehrotra, et. al., “Global Biotechnology, Has the Biotech Bubble Burst? – What History Tells Us,” Credit Suisse Equity Research, March 25, 2014] at 1, 5.

1 assumptions. Therefore, evidence and argument concerning this section of Dr. Sullivan's report  
2 should be excluded.

3 **4. Evidence and Argument Concerning Dr. Sullivan's "Marketplace**  
4 **Analysis" Should be Excluded (§ 13 of Expert Report)**

5 Dr. Sullivan also attempts to estimate damages based on a comparison of "Ariosa's actual  
6 U.S. revenues to estimated U.S. revenues based on overall NIPT marketplace growth between  
7 2014 and 2016." *See* Ex. 1 [Expert Report of Ryan Sullivan] ¶ 202. Dr. Sullivan concludes  
8 Ariosa's growth rate is, in addition to being lower than what Ariosa forecasted, "lower than the  
9 growth experienced by other NIPT providers during the same time period." *See id.* ¶ 203. Dr.  
10 Sullivan then concludes that "Ariosa's relatively slow growth rate is, *at least in part*, caused by  
11 Illumina's alleged conduct." *Id.*

12 Dr. Sullivan provides no basis for his assumption that Ariosa would have grown at the  
13 same rate as the other companies but for Illumina's alleged misconduct. Ariosa was the only  
14 company providing microarrays and was admittedly having difficulties with entering supply  
15 agreements allowing companies to develop their own LDT tests. Given these factors unique to  
16 Ariosa, there is no reason to assume that Ariosa would perform the same as its competitors but for  
17 Illumina's alleged misconduct. Additionally, the benchmark companies that Dr. Sullivan selects  
18 (Natera, Verinata, and Sequenom) experienced dramatically different growth rates. In particular,  
19 Natera and Verinata experienced 181.8% and 192.3% growth in 2013-2014, respectively. *See* Ex.  
20 1 ¶ 203. Sequenom, on the other hand, experienced a 25.2% growth rate in 2013-2014.

21 Dr. Sullivan's Marketplace Analysis thus suffers from several methodological flaws and  
22 faulty assumptions. Therefore, evidence and argument concerning this section of Dr. Sullivan's  
23 report should be excluded.

24 **C. Evidence and Argument Concerning Dr. Sullivan's "Event Study" Should be**  
25 **Excluded (§ 8 of Expert Report)**

26 Finally, Dr. Sullivan's "Event Study" purports to measure the impact of Ariosa's planned  
27 IPO on Illumina's market capitalization. *See* Ex. 1 [Expert Report of Ryan Sullivan] ¶¶ 92-132.  
28 Dr. Sullivan's event study concludes that Ariosa's plan to go public would cost Illumina \$2.5

1 billion to its market capitalization. *See id.* ¶¶ 125-126. These opinions have no impact on Dr.  
2 Sullivan’s damages calculations and thus have no relevance to either Ariosa’s breach of contract  
3 damages or Illumina’s patent damages. These irrelevant opinions—and their potential to prejudice  
4 and confuse the jury if used to imply that Illumina had a motive to interfere with Ariosa’s IPO—  
5 must be excluded.

6 The methodology employed to prepare the Event Study is also highly unreliable. Dr.  
7 Sullivan uses a single-firm (Illumina) event study, which has been criticized as most practitioners  
8 outside of litigation use multi-firm event studies.<sup>5</sup> The record also contradicts Dr. Sullivan’s faulty  
9 opinions. At the end of 2013, Illumina’s entire prenatal diagnostics revenue made up less than 2%  
10 of Illumina’s total revenue. *See* Ex. 2 [“Pre-Fireworks Deep Dive: ILMN Remains a Premier  
11 Growth Story into Q2 Earnings,” Cowen Equity Research, June 25, 2014] at 11. It is illogical to  
12 argue that Ariosa’s IPO, a prenatal diagnostics company, could impact Illumina’s market  
13 capitalization by an amount in the billions of dollars when this market constitutes only 2% of  
14 Illumina’s revenue.

15 In addition, Dr. Sullivan himself admits that the study’s results lack statistical significance.  
16 In particular, Dr. Sullivan’s event study looks at two events: Ariosa’s initial S-1 filing that  
17 announced Ariosa’s intentions to IPO and Ariosa’s Amendment 2 to the S-1 on April 24, 2014,  
18 when Ariosa listed pricing. *See* Ex. 1 [Expert Report of Ryan Sullivan] ¶ 92. Dr. Sullivan opines  
19 that the March 25th trading day would have been most impacted by Ariosa’s filing announcing  
20 Ariosa’s planned IPO. *Id.* ¶ 108. Yet, the statistical significance for the March 25 event has a *p*-  
21 value of 0.314, which Dr. Sullivan himself admits is not significant. *See id.* ¶ 128 (“The *p*-values  
22 of 0.314 and 0.091 on individual days’ abnormal returns in that event window show that the  
23 abnormal return is not statistically significant for March 25, 2014, but is statistically significant at  
24 the 10% level for March 26, 2014.”). Therefore, Dr. Sullivan’s event study finds no statistically  
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26 <sup>5</sup> *See, e.g.,* Ex. 3 [[http://openscholarship.wustl.edu/cgi/viewcontent.cgi?article=6193&context=](http://openscholarship.wustl.edu/cgi/viewcontent.cgi?article=6193&context=law_lawreview)  
27 [law\\_lawreview](http://openscholarship.wustl.edu/cgi/viewcontent.cgi?article=6193&context=law_lawreview)] at 583 (“Multi-firm event studies are generally accepted in financial economics  
28 studies—the mainstay of modern securities fraud litigation—are almost nonexistent in peer-  
reviewed journals.”); *id.* at 584 (explaining flaws).



1 significant abnormal results on the day that Dr. Sullivan admits would be most impacted by  
2 Ariosa's announcement of its IPO intentions. This indicates that there is zero correlation between  
3 Ariosa's IPO announcement and the trading of Illumina's stock.

4 Dr. Sullivan's Event Study is irrelevant, relies on flawed methodology, and would be  
5 highly prejudicial and confusing if presented to the jury. Therefore, evidence and argument  
6 concerning this section of Dr. Sullivan's report should be excluded.

7 **III. CONCLUSION**

8 For the foregoing reasons, the Court should exclude the aforementioned opinions proffered  
9 by Dr. Ryan Sullivan.

10  
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Respectfully submitted,

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